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CLAIMS

1. / A purified HCV polynucleotide.
- 5 2. / A recombinant HCV polynucleotide.
3. / A recombinant polynucleotide comprising a sequence derived from an HCV genome or from HCV cDNA.
- 10 4. / A recombinant polynucleotide encoding an epitope of HCV.
5. A recombinant vector containing the polynucleotide of claim 2, or claim 3, or claim 4.
- 15 6. A host cell transformed with the vector of claim 5.
7. / A recombinant expression system comprising an open reading frame (ORF) of DNA derived from an HCV genome or from HCV cDNA, wherein the ORF is operably linked to a control sequence compatible with a desired host.
- 25 8. A cell transformed with the recombinant expression system of claim 7.
9. / A polypeptide produced by the cell of claim 8.
- 30 10. / Purified HCV.
11. A preparation of polypeptides from the HCV of claim 10.
- 35 12. / A purified HCV polypeptide.

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13. / A purified polypeptide comprising an epitope which is immunologically identifiable with an epitope contained in HCV.

5 14. / A recombinant HCV polypeptide.

15. / A recombinant polypeptide comprised of a sequence derived from an HCV genome or from HCV cDNA.

10 16. / A recombinant polypeptide comprised of an HCV epitope.

15 17. / A fusion polypeptide comprised of an HCV polypeptide.

18. / A monoclonal antibody directed against an HCV epitope.

20 19. / A purified preparation of polyclonal antibodies directed against HCV.

25 20. / A particle which is immunogenic against HCV infection comprising a non-HCV polypeptide having an amino acid sequence capable of forming a particle when said sequence is produced in a eukaryotic host, and an HCV epitope.

21. / A polynucleotide probe for HCV.

- 30 22. / A kit for analyzing samples for the presence of polynucleotides derived from HCV comprising a polynucleotide probe containing a nucleotide sequence from HCV of about 8 or more nucleotides, in a suitable container.

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23. A kit for analyzing samples for the presence of an HCV antigen comprising an antibody directed against the HCV antigen to be detected, in a suitable container.

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24. A kit for analyzing samples for the presence of an antibodies directed against an HCV antigen comprising a polypeptide containing an HCV epitope present in the HCV antigen, in a suitable container.

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25. A polypeptide comprised of an HCV epitope, attached to a solid substrate.

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26. An antibody to an HCV epitope, attached to a solid substrate.

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27. A method for producing a polypeptide containing an HCV epitope comprising incubating host cells transformed with an expression vector containing a sequence encoding a polypeptide containing an HCV epitope under conditions which allow expression of said polypeptide.

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28. A polypeptide containing an HCV epitope produced by the method of claim 27.

29. A method for detecting HCV nucleic acids in a sample comprising:

30 (a) reacting nucleic acids of the sample with a probe for an HCV polynucleotide under conditions which allow the formation of a polynucleotide duplex between the probe and the HCV nucleic acid from the sample; and

(b) detecting a polynucleotide duplex which contains the probe.

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30 / An immunoassay for detecting an HCV antigen comprising:

(a) incubating a sample suspected of containing an HCV antigen with a probe antibody directed against the 5 HCV antigen to be detected under conditions which allow the formation of an antigen-antibody complex; and

(b) detecting an antigen-antibody complex containing the probe antibody.

10 31 / An immunoassay for detecting antibodies directed against an HCV antigen comprising:

(a) incubating a sample suspected of containing anti-HCV antibodies with a probe polypeptide which contains an epitope of the HCV, under conditions which 15 allow the formation of an antibody-antigen complex; and

(b) detecting the antibody-antigen complex containing the probe antigen.

20 32. / A vaccine for treatment of HCV infection comprising an immunogenic polypeptide containing an HCV epitope wherein the immunogenic polypeptide is present in a pharmacologically effective dose in a pharmaceutically acceptable excipient.

25 33. / A vaccine for treatment of HCV infection comprising inactivated HCV in a pharmacologically effective dose in a pharmaceutically acceptable excipient.

30 34. / A vaccine for treatment of HCV infection comprising attenuated HCV in a pharmacologically effective dose in a pharmaceutically acceptable excipient.

35 35. / A tissue culture grown cell infected with HCV.

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36. The HCV infected cell of claim 35, wherein the cell is of a human macrophage cell line, or is of a hepatocyte cell line, or is of a mosquito cell line, or is of a tick cell line, or is of a mouse macrophage cell line, or is an embryonic cell.

37. The HCV infected cell of claim 35, wherein the cell is of a cell line derived from liver of an HCV infected individual.

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38. A method for producing antibodies to HCV comprising administering to an individual an isolated immunogenic polypeptide containing an HCV epitope in an amount sufficient to produce an immune response.

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39. A method for producing antibodies to HCV comprising administering to an individual the polypeptide preparation of claim 11, wherein the preparation contains at least 1 immunogenic polypeptide, and the administering is of an amount sufficient to produce an immune response.

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Add
B2
Add
C1

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ADD F1

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Cold
G6
overly
L1

ADD
L4